

EXHIBIT M

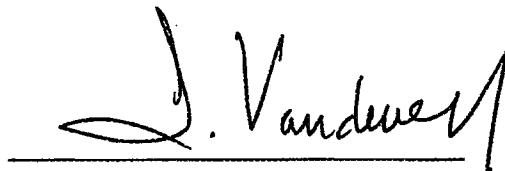
**SUPPLEMENTAL EXPERT OPINION OF
JAY VANDEVEN**

Re:

**BOARHEAD FARMS SUPERFUND SITE
Upper Black Eddy, Pennsylvania**

Prepared for
Ballard Spahr Andrews & Ingersoll LLP

Prepared by



Jay Vandeven
Principal
ENVIRON International Corporation
Arlington, Virginia

May 7, 2008

INTRODUCTION

I have been retained by the plaintiffs in this case through the law firm of Ballard Spahr Andrews & Ingersoll LLP to review the data and documents related to the Boarhead Farms Superfund Site located on Lonely Cottage Road, Upper Black Eddy, Bridgeton Township, Bucks County, Pennsylvania (the "Site"). This document provides my Supplemental Expert Opinion regarding the costs incurred by the Potentially Responsible Parties ("PRPs") for the Site from November 2005 through 2007. In 2006, I prepared two reports presenting my opinions on certain topics related to the investigation and remediation of the Site. Specifically, I prepared my Expert Report dated June 30, 2006 and my Expert Rebuttal Opinions report dated November 15, 2006. These reports included my opinions regarding the costs incurred by the PRPs through November 2005 and anticipated future costs.

In 2008 I was asked to provide a supplemental opinion regarding the costs incurred by the PRPs since November 2005. The additional documents I have reviewed to address this request are identified in Attachment A; the relevant documents listed in my previous reports are not listed again here. This document provides my opinion regarding the costs reported in those documents. A statement of my qualifications, experience, previous testimony, and billing rate was presented in my original expert report of June 30, 2006 and is not repeated herein.

SUPPLEMENTAL OPINION

This section provides and explains the basis for my supplemental opinion.

Supplemental Opinion:

The costs incurred by the PRPs from November 2005 through the end of 2007 are associated with ongoing performance of Remedial Design and Remedial Action activities required by the National Contingency Plan and conducted under the terms of Consent Decrees. In my opinion, these costs are reasonable given the requirements of the ROD and the characteristics of the Site.

This opinion is supported by the following observations:

- The costs incurred by the PRPs from November 2005 through the end of 2007 are summarized in three spreadsheet documents (one each for 2005, 2006, and 2007) prepared by de maximis, inc. These spreadsheets indicate that the PRPs made payments to three contractors during the period of interest (Bigler Associates, Inc.; Brown & Caldwell; and de maximis, inc.). The documents that are summarized in each spreadsheet (which I refer to as “invoice approval and distribution packages”) include invoices and supporting documents that describe the services provided by each contractor. The services provided by all three contractors are related to continuation of the remedial design/remedial action activities performed by the PRPs under the Consent Decrees.
- The invoice approval and distribution packages indicate that de maximis reviewed the other contractor invoices carefully before forwarding them for payment, and that the contractors’ charges were also reviewed by the PRPs.
- The total charges shown on the spreadsheets for 2006 and 2007 are substantially less than the estimate of annual Operations and Maintenance (“O&M”) costs provided in the Record of Decision.

ATTACHMENT A
ADDITIONAL MATERIALS REVIEWED AND RELIED UPON
FOR THIS SUPPLEMENTAL OPINION

de maximis, inc. 2006. Boarhead Farms Superfund Site – 2005 Costs Tracking for OU 1 RD/RA/O&M Activities. June 5. BSAI083958-0839560

de maximis, inc. 2008. Boarhead Farms Superfund Site – Cost Tracking for OU 1 RD/RA/O&M Activities for 2006. March 6. BSAI103956-103957

de maximis, inc. 2008. Boarhead Farms Superfund Site – Cost Tracking for OU 1 RD/RA/O&M Activities for 2007. March 6. BSAI103958-103959

de maximis, inc. Invoice approval and distribution packages, Boarhead Farms Superfund Site.

Various dates, numbered as:

BSAI101284-101305

BSAI101729-101767

BSAI101782-101794

BSAI102780-102802

BSAI102802A, B

BSAI83851A, B

BSAI1083842-1083851

BSAI102082-102098

BSAI102426-102439

BSAI102439A, B

BSAI102440-102463

BSAI102465-102482

BSAI102484-102488

BSAI102802A, B

BSAI102743-102779

BSAI102742A, B, C

BSAI102711-102742

BSAI102624A, B

BSAI102591-102624

BSAI102710A, B, C, D, E, F

BSAI102652-102710

BSAI102651A, B, C, D

BSAI102638-102651
BSAI102637A, B
BSAI102625-102637
BSAI102590A, B, C
BSAI102522-102590
BSAI102815C, D, E, F, G, H, I, J, K, L, M, N
BSAI102953A, B
BSAI102909-102953
BSAI102908A, B
BSAI102871-102908
BSAI102835A, B, C
BSAI102816-102835
BSAI102860A, B
BSAI102836-102860
BSAI102870A, B
BSAI102861-102870
BSAI103623A, B
BSAI103605-103623
BSAI103624-103699
BSAI103709-103727

EXHIBIT N

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF PENNSYLVANIA

AGERE SYSTEMS, INC., ET AL.,	:	
	:	CIVIL ACTION

Plaintiff,	:	
	:	

v.	:	
	:	

ADVANCED ENVIRONMENTAL	:	NO. 02-3830
TECHNOLOGY CORPORATION, ET AL.,	:	

Defendants.	:	FILED MAY 16 2006
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EIGHTH CASE MANAGEMENT ORDER

AND NOW, this 16th day of May, 2006, it is hereby ORDERED that this case shall proceed as follows:¹

1. Plaintiffs shall make their expert disclosures and produce the information required by Fed. R. Civ. P. 26(a)(2) on or before June 30, 2006.
2. Defendants shall make their expert disclosures and produce the information required by Fed. R. Civ. P. 26(a)(2) on or before September 29, 2006.
3. Plaintiffs shall make their rebuttal expert disclosures (if any), and produce the information required by Fed. R. Civ. P. 26(a)(2) on or before November 15, 2006.
4. Pursuant to Fed. R. Civ. P. 26(b)(4), any party may take the deposition of any identified expert after the expert's report has been produced. Except upon motion for good cause shown, all expert depositions must be completed by December 20, 2006.
5. Defendants may serve Plaintiffs with contention interrogatories on or before

¹This Order shall supersede all prior Case Management Orders entered in this case.

January 15, 2007, in accordance with the Court's June 23, 2005 Order (Doc. No. 169), to which Plaintiffs will respond as required by Fed. R. Civ. P. 33(b).

6. Any party may file a motion for summary judgment at any time pursuant to Fed. R. Civ. P. 56.
7. After the close of this discovery period, the Court will schedule a case management conference to determine a framework for the remainder of this action. If appropriate, the Court will consider motions to compel and/or reasonable extension of discovery at that time, in accordance with the Court's June 23, 2005 Order (Doc. No. 169). Prior to the conference, the parties shall confer in good faith to abide by the terms of this Order.

BY THE COURT:



Legrome D. Davis

EXHIBIT O

Slip Copy

Page 1

Slip Copy, 2007 WL 2890248 (E.D.N.Y.), 74 Fed. R. Evid. Serv. 916

(Cite as: 2007 WL 2890248 (E.D.N.Y.))

C

Chitayat v. Vanderbilt Associates
E.D.N.Y., 2007.

United States District Court, E.D. New York.

Anwar CHITAYAT, Plaintiff,

v.

VANDERBILT ASSOCIATES, a Partnership, and
Barbara Gross as Executrix of the Estate of Walter
Gross, Defendants.

Barbara Gross as Executrix of the Estate of Walter
Gross, Third-Party Plaintiff,

v.

Thomas F. Manno Revocable Trust U/A 13th Day
of February 1990, Wildoro Associates, Charles
Rose, and Elizabeth Boinott, as Administrators of
the Estate of Howard Rose, Third-Party Defen-
dants.

Barbara Gross as Executrix of the Estate of Walter
Gross, Third-Party Plaintiff,

v.

Pall Corporation, Vanderbilt Generation L.P. and
Vanderbilt Generation II Corp., Third-Party De-
fendants.

Civil Action No. 03-5314 (DRH)(MLO).

Sept. 27, 2007.

Certilman Balin Adler & Hyman, LLP, by: Candace
Reid Gladstone, Esq., James Rigano, Esq., East
Meadow, NY, for Plaintiff Anwar Chitayat.

Sive, Paget & Riesel, P.C., by: Daniel Riesel, Esq.,
Dan Chorost, Esq., Ashley Miller, Esq., New York,
NY, for Defendant/Third-Party Plaintiff Estate of
Walter Gross.

Tannenbaum Helpern Syracuse & Hirschtritt, by:
John-Patrick Stiles Curran, Esq., New York, NY,
for Defendant Vanderbilt Associates and Third-
Party Defendant Wildoro Associates.

Wilmer Cutler Pickering Hale and Dorr LLP, by:
Daniel H. Squire, Esq., Washington, D.C., for
Third-Party Defendant Estate of Howard Rose.

Bond, Schoeneck & King, PLLC, by: Thomas R.
Smith, Esq., Robert R. Tyson, Esq., James P. Clark,

Esq., Garden City, NY, for Third-Party Defendant
Pall Corporation One Lincoln Center.

MEMORANDUM & ORDER

HURLEY, Senior District Judge.

*1 Plaintiff Anwar Chitayat ("Plaintiff" or
"Chitayat") commenced this action in 2003 pursuant
to the Comprehensive Environmental Response,
Compensation and Liability Act ("CERCLA"),^{FN1} 42
U.S.C. § 9601 et seq., as well as state law,
seeking to recover response costs incurred in the re-
mediation of tetrachloroethene ("PCE") and other
contaminants at 100 Oser Avenue, Hauppauge,
New York (the "Oser Site"). The Oser Site is located
within the Hauppauge Industrial Park and oc-
cupies approximately two acres of land.

^{FN1}. The amended complaint asserts a
claim for joint and several cost recovery
pursuant to § 107 of CERCLA, a claim for
contribution pursuant to § 113(f) of CER-
CLA, a declaratory judgment claim under
CERCLA, and a claim under state law for
restitution.

Presently before the Court are two motions in
limine by Third-Party Defendant Pall Corporation
("Pall") who is the owner of the property at 225
Marcus Boulevard, Hauppauge (the "Pall Site"),
which is also located in the Hauppauge Industrial
Park. The Pall Site is approximately 200-300 feet
southwest hydrogeologically and immediately up-
gradient of the Oser Site. One motion seeks to pre-
clude the testimony of Dan C. Buzea ("Buzea"), an
expert retained by Defendant/Third-Party Plaintiff
Barbara Gross, as Executrix of the Estate of Walter
Gross ("Gross"). Gross intends to call Buzea at trial
to testify concerning the relative responsibility of
the parties for contamination at the Oser Site and
the appropriate allocation of liability for the re-
sponse costs at issue. The other motion seeks to
preclude the testimony of Dr. Thomas E. Pease, PE
("Pease") an expert retained by Chitayat. Chitayat

intends to call Pease to testify at trial concerning, *inter alia*, Pall's contribution to the contamination in groundwater at the Oser Site and whether or not the response costs in remediating the Oser Site were reasonable, necessary, and consistent with the National Contingency Plan ("NCP"), 40 C.F.R. § 300 et seq ., as required by CERCLA. For the reasons set forth below, the motion as to Buzea is granted in part and denied in part and the motion as to Pease is granted in part and denied in part.

I. Relevant Legal Principles

Rule 702 of the Federal Rules of Evidence governs the admissibility of expert testimony. It provides: If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training or education, may testify thereto in the form of an opinion or otherwise, if (1) the testimony is based upon sufficient facts or data, (2) the testimony is the product of reliable principles and methods and (3) the witness has applied the principles and methods reliably to the facts of the case. Fed.R.Evid. 702. Rule 702 "embodies a liberal standard of admissibility for expert opinions" *Nimely v. City of New York*, 414 F.3d 381, 395 (2d Cir.2005). The Supreme Court has made clear that a district court has a "gatekeeping" function under Rule 702 and must "ensur[e] that an expert's testimony both rests on a reliable foundation and is relevant to the task at hand." *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 597 (1993). "In gauging reliability, the district court should consider the indicia of reliability identified in Rule 702...." *Willis v. Amerada Hess Corp.*, 379 F.3d 32, 48 (2d Cir.2004). The three indicia of reliability set forth in Rule 702 are not, however, exhaustive. "The district court may consider a number of other factors ... including: (1) whether a theory or technique had been or can be tested; (2) 'whether the theory or technique had been subjected to peer review and publication;' (3) 'the technique's known or potential rate of error' and 'the existence and

maintenance of standards controlling the technique's operation;' and (4) whether a particular technique or theory has gained general acceptance in the relevant scientific community." *Id.* (citing *Daubert*, 509 U.S. at 593-94). "Although expert testimony should be excluded if it is speculative or conjectural, ... or if it is based on assumptions that are so unrealistic and contradictory as to suggest bad faith, or to be in essence an apples and oranges comparison, ... other contentions that the assumptions are unfounded go to the weight, not the admissibility of the testimony." *Boucher v. United States Suzuki Motor Corp.*, 73 F.3d 18, 21 (2d Cir.1996) (internal citations and quotations omitted). *Accord McCullock v. H.B. Fuller Co.*, 61 F.3d 1038, 1044 (2d Cir.1995).

*2 A district court has broad discretion with respect to the admissibility or exclusion of expert evidence. *McCullock*, 61 F.3d at 1044. That the court will be the trier of fact affects both its discretion and its gatekeeping function. Greater deference is granted to a court's determination of relevance in a bench trial because the court is "presumed to be able to exclude improper inferences from its own decisional analysis." *George v. Celotex Corp.*, 914 F.2d 26, 28 (2d Cir.1990). Similarly, a court has greater flexibility in satisfying its gatekeeping function vis a vis expert testimony where it is the trier of fact given the absence of the need to protect juries from dubious expert evidence. See, e.g., *New York v. Solvent Chem. Co.*, 2006 WL 2640647, at *1 (W.D.N.Y. Sept. 14, 2006); *American Home Assur. Co. v. Masters' Ships Mgmt. S.A.*, 2005 WL 159592, *1 (S.D.N.Y. Jan. 25, 2005). Cf. *Gonzales v. Nat'l Bd. of Med. Exam'rs*, 225 F.3d 620, 635 (6th Cir.2000) (explaining that where district court is the trier of fact, it has greater flexibility in admitting proffered expert testimony and then deciding during the course of the trial whether the evidence meets the requirements of *Daubert* and deserves to be credited).

With these principles in mind, the Court shall now discuss the proposed expert testimony and the pro-

posed bases for exclusion.

II. The Buzea Testimony

A. Buzea's Qualifications

According to his curriculum vitae, Buzea holds a Masters of Science degree in geology and is certified as a Professional Geologist by the American Institute of Professional Geologists. He is a member of the Geological Society of America, the American Institute of Professional Geologists and the Association of Ground-Water Scientists and Engineers. He has extensive experience in the fields of hydrogeology and environmental remediation, including a number of projects involving ground water contamination and remediation on Long Island.

B. The Nature of Buzea's Testimony

Buzea begins his report with a description of the Oser Site and its use history, including its lease to Sands Textile, a textile manufacturer which used PCE to dry clean finished textile products, and its use by Anorad, a company owned by Plaintiff, which manufactured technical rotational positioning equipment. Next, he discusses the geology and hydrogeology of the Oser Site and its immediate vicinity and sets forth the hydrogeologic parameters relied on in his report.^{FN2}

FN2. According to Buzea, these same parameters are listed in a Pall report entitled Remedial Investigation Report, Pall Rai., Inc., May 1993 by C.A. Rich Consultants, Inc.

The report then turns to contaminant characterization and source evaluation. The primary contaminants of concern consist of PCE, carbon tetrachloride, methylene chloride, and toluene, all of which are volatile chemical compounds ("VOCs"). As described in the report, PCE is a manufactured chemical compound widely used for dry cleaning of fabrics and for metal degreasing; carbon tetrachloride

is a synthetic chemical compound whose industrial uses include the production of chlorofluorocarbons used in refrigeration and as a degreasing solvent; methylene chloride is a chemical compound used as a solvent in paint removers, degreasing agents, and aerosol propellants; and toluene is a chemical compound widely used as an industrial feedstock and as a solvent. Of the four compounds, carbon tetrachloride is the most toxic with a health hazard rating of severe; the other three compounds have a moderate health hazard rating. With the exception of toluene, the compounds have carcinogenic health effects associated with them. The water solubility of all four compounds indicates that they are readily absorbed into the groundwater table. Based on their chemical properties, methylene chloride and carbon tetrachloride are more difficult to remove from soil and ground water using a soil vapor extraction or other similar remedial technologies. With respect to source evaluation, the report examines both on-site and off-site sources.

*3 In evaluating on-site sources, Buzea examined various reports and documents and concluded that sufficient documentation existed to conclude that Sands Textile used PCE during its operations. However, the absence of documentation of the use of carbon tetrachloride and methylene chloride and/or toluene by Sands Textile led Buzea to conclude that Sands Textile was not the source of these contaminants.

Turning to off-site sources, Buzea evaluated the Pall Site, as well as six industries located upgradient of the Oser Site in the Hauppauge Industrial Park. The report specifies that the various documents analyzed indicate that (1) Pall used hazardous materials in conjunction with its operations including PCE, carbon tetrachloride, methylene chloride and toluene; (2) Pall repeatedly discharged these contaminants through leaking underground storage tanks as well as several onsite leaching pools; and (3) the existence of two contaminated groundwater plumes on the Pall Site consisting primarily of the four above-mentioned contamin-

ants. Buzea opines that based on the predominant direction of groundwater flow, these contaminated plumes have been migrating to the northeast directly onto the Oser Site and commingling with the PCE plume originating from the Oser Site, providing significant contribution to the Oser Site contamination. With respect to the six other industries examined, Buzea concludes, based on various reports and documents, that these companies are a major contributor to the groundwater contamination in the area and to the contamination detected beneath the Oser Site but because of the lapse of time, a precise allocation of responsibility for these other off site contaminants is not possible.

Buzea uses two groundwater models to assist in estimating the contaminant contribution from the Pall Site to the Oser Site. First, Buzea uses the Quick Domenico fate and transport model ("QD model") FN3 and concludes that Pall contributed twenty percent of the contamination on-site. He then uses contaminant mass calculations and concludes that Pall's contaminant contribution to the Oser Site was twenty-two percent.

FN3. In selecting and applying the QD Model, Buzea worked with Will Avery ("Avery"), a specialist in groundwater modeling. Avery has experience in the area of fate and transport modeling and holds a Masters of Science in Hydrogeology and a Masters of Science and engineering in Management of Technology. He has fifteen years of modeling experience and extensive experience in field investigations of contamination and source evaluation.

The QD model evaluates the spatial distribution and concentrations of contaminants over time based on a series of values and parameters. According to Buzea, a wide range of data and factors were used to select the values including historical data for both sites, Oser Site specific factors such as soil porosity and composition, and, in the absence of site-specific data, standard literature sources and government guidance documents wherein paramet-

er values are published. In using the QD model, Buzea did not calibrate it because, he explains, there was insufficient data to do so. Calibration is the adjustment of parameters of a model's geometry or input parameter values in an effort to match model outputs to observed conditions. Buzea maintains that the model remains an important tool to evaluate the fate and transport of contaminants in groundwater specifically because of the failure by Plaintiff, Pall and others, to collect sufficient groundwater samples by which the two sites may be fully characterized.

*4 The second model used by Buzea is the mass contaminant model which, he maintains, is a method relied upon by governmental entities and private parties in evaluating subsurface contamination and in evaluating its sources. The calculations were made by determining the total volume of contaminated groundwater in the specified geographic area, utilizing an estimated depth of contamination within the plumes. In order to account for the volume of soil within the area, the volume was then multiplied by the soil porosity, with the resulting number representing the volume of water and contamination. The concentration of contamination was then determined from samples taken from wells within the geographic area and multiplied into mass calculations in order to determine the volume of contaminants, isolated from groundwater. The calculation was performed separately for the Pall plumes and the Oser Site. The values for the plumes were based on historic site investigations, the contaminations concentration being based on a two year average for eleven monitoring wells within the plume. The average contamination concentration for the Oser Site was based on the highest detected concentration of PCE, resulting, per Buzea, in an inherent understatement of Pall's contribution to the Oser Site.

After use of the QD and mass contaminant models, Buzea undertakes an analysis of the so-called "Gore factors" FN4 to determine the portion of the response costs for which the parties should be held liable. The Gore factors are equitable factors used by

the courts in CERCLA contribution cases to allocate response costs among liable parties. *See generally Environ. Transp. Sys. v. ENSCO, Inc.*, 969 F.2d 503, 508 (7th Cir.1990). The factors include, among other things: (1) the ability of the parties to demonstrate that their contribution to a discharge, release, or disposal of a hazardous waste can be distinguished; (2) the amount of hazardous waste involved; (3) the degree of toxicity of the hazardous waste involved; (4) the degree of involvement by the parties in the generation, transportation, treatment, storage or disposal of the hazardous waste; (5) the degree of care exercised by parties with respect to the hazardous waste concerned taking into account the characteristics of such waste; and (6) the degree of cooperation of the parties with federal, state, or local authorities to prevent any harm to the public health or environment. Based on his consideration of these equitable factors Buzea opines that Pall should be liable for 23% of the contamination to the Oser Site and the remaining 77% should be allocated to Plaintiff.

FN4. The Gore factors are so named because they are derived from the amendment that then-Representative Gore introduced in 1980 to alleviate the harshness of mandatory apportionment which was at that time a part of the bill. *See* 126 Cong. Rec. 26782 (1980) (statement of Rep. Gore).

It is Buzea's use of the QD model and the mass contaminant calculations, as well as his Gore factor opinion, that form the basis for Pall's *Daubert* challenge.

III. Pall's Contentions as to Buzea

Pall summarizes its argument that Buzea's opinions are unscientific and unreliable and therefore should not be admitted as follows:

*5 The contaminant fate and transport model he used was not calibrated and its predictions were

completely inconsistent with data actually collected from the Site.

Buzea's use of the contaminant fate and transport model is based on faulty assumptions.

Buzea's calculation of the mass of contaminants supposedly contributed by Pall is based upon assumptions that make no sense, assumes an area of contamination of uniform concentration that simply cannot be defended and has multiple mistakes.

The opinions on equitable allocation, based on the Gore factors, are completely subjective and untestable, and usurp the court's function.

Pall Corp.'s Mem. in Supp. of Motion in Limine to Preclude Expert Testimony of Dan C. Buzea ("Pall Buzea Supp. Mem.") at 3-4. In support of the contentions regarding the QD model and the calculation of mass of contaminants, Pall submits the affidavit of its own expert, Neil M Ram, Ph.D. ("Ram").

With respect to the QD model, Ram takes issue with various parameters (assumptions) used by Buzea, and the failure to calibrate the model. Ram points to a discrepancy between the QD model predictions and "actual conditions" determined by a single 2000 sample result as evidence of QD model's unreliability in this case.^{FN5} As to Buzea's allocation opinion based on calculation of the relative mass of contaminants, Ram argues, *inter alia*, that Buzea's calculation was biased because he used data collected in 1988 and 1989 as the basis of his calculation of the mass of contaminants allegedly contributed by Pall and then compared this calculation with the calculation of contaminant mass associated with the Oser Site plume based on data obtained in 2000 and 2001, failing to account for the attenuation of contamination over the ten year period. Ram also criticizes the area used to calculate the volume of contaminants contributed by Pall and contends that the calculation of Pall's proportion did not use the correct variables.

FN5. Pall does not dispute that the QD Model is commonly used and is acceptable to evaluate fate and transport, i.e. migration of groundwater contamination, in certain situations.

With respect to Buzea's allocating costs based on his evaluation of the Gore factors, Pall argues that while "[e]xpert testimony might illuminate the court's consideration of equitable factors, ... balancing those factors to arrive at an equitable allocation is an essentially judicial function." Pall Buzea Supp. Mem. at 15. Additionally, Pall argues that this testimony violates *Daubert* in that (1) there is no recognized professional discipline in the area of equitable allocation; (2) there is an inability to test the opinion; (3) there is no identifiable error rate or standard; (4) it is not based on reliable data; and (5) it ignored relevant information.

IV. Application of Relevant Legal Principles to Buzea

The Court finds that Buzea's professional education and experience and his use of the QD model and mass contaminant calculations satisfy the requirements of *Daubert* and Federal Rule of Evidence 702. Based on the materials submitted to the Court, although some of the issues presented are close, Buzea's testimony is neither speculative or conjectural or based on assumptions that are so unreasonable and contradictory as to suggest bad faith. See *Boucher*, 73 F.3d at 21. Challenges to his assumptions or conclusions go to the weight of the evidence, not the admissibility. See *McCullock*, 61 F.3d at 1043. Accordingly, the motion in limine as to Buzea is denied insofar as to the QD model and the mass contaminant calculations.

*6 Buzea's testimony on the Gore equitable factors, is however, another matter.

[A]n expert is not permitted to provide legal opinions [or] legal conclusions ...; those roles fall solely within the province of the court. *Hygh v. Jacobs*,

961 F.2d 359, 363-64 (2d Cir.1992) (citing *Marx & Co., Inc. v. Diners' Club Inc.*, 550 F.2d 505, 509-510 (2d Cir.1977); see also *TC Sys. Inc. v. Town of Colonie, New York*, 213 F.Supp.2d [171,] 181 [(N.D.N.Y.2002)] ("It is well established within this Circuit that expert testimony cannot 'usurp the role of the trial judge in instructing the factfinder as to the applicable law'... and may not give testimony stating ultimate legal conclusions based upon the facts.") (citing, *inter alia*, *United States v. Bilzerian*, 926 F.2d 1285, 1294 (2d Cir.1991)).

Randout Valley Cent. Sch. Dist. v. Coneco Corp., 321 F.Supp.2d 469, 480 (N.D.N.Y.2004).

"CERCLA's allocation scheme is an equitable determination, in which the district court must make its own factual findings and legal conclusions." *Control Data Corp. v. S.C.S.C. Corp.*, 53 F.3d 930, 938 (8th Cir.1995). Under CERCLA, "[i]n resolving contribution claims, the courts may allocate response costs among liable parties using such equitable factors as the court determines are appropriate." 42 U.S.C. § 9613(f)(1); see *B.F. Goodrich Co. v. Murtha*, 958 F.2d 1192, 1206 (2d Cir.1992) (stating court may consider an array of factors, including the financial resources of the parties involved).

Buzea's proposed testimony as to cost allocation based on the Gore factors violates the precept precluding an expert from stating ultimate legal conclusions based upon facts. As Pall aptly states, while "[e]xpert testimony might illuminate the court's consideration of equitable factors, ... balancing those factors to arrive at an equitable allocation is an essentially judicial function." Pall Buzea Supp. Mem. at 15. In addition, Buzea would appear to have no qualifications, either by way of knowledge, skill, experience, training or education, as an expert in equitable allocation, assuming such an area of expertise exists. Accordingly, the motion in limine is granted insofar as Buzea's testimony on allocation based on the Gore factors and said testimony shall be precluded at trial. *Accord New York*

v. Westwood Squibb Pharm. Co., 2001 U.S. Dist. Lexis 11765 at *18-32 (W.D.N.Y. June 23, 2001) (excluding expert testimony on CERCLA allocation based on equitable factors).

V. The Pease Testimony

A. Pease's Qualifications

Pease is a professional engineer in the State of New York and the Commonwealth of Pennsylvania. He holds a Bachelor of Science in Physics, a Masters of Science, as well as a PhD. His professional experience includes over thirty years of evaluating environmental conditions through science and engineering studies, assessing environmental impacts and mitigating impacts of contaminants in soil, sediment, surface and groundwater, including substantial work in the same geologic and hydrologic conditions as occur at the Oser Site.

B. The Nature of Pease's Testimony

*7 Pease begins his report with a description of the four contaminants at issue and how they migrate through the soil and groundwater and act as a source of VOC vapors above a groundwater plume. He then turns to the operation and conditions at the Oser Site.

Pease first examines operation and conditions during Vanderbilt's ownership. Based on his review of certain records, Pease concludes that waste containing PCE was routinely discharged to sumps, roof drains, and cesspools, all of which discharged directly to the soil. He then turns to the operations and conditions during Chitayat's operation of the Oser Site. He concludes that Chitayat's operation did not use PCE, except in trace quantities as a constituent of a cleaner known as Safety Kleen. He notes how Chitayat agreed to allow Pall to sample the groundwater beneath the Oser Site and then describes the results of the samples collected from the monitoring wells. Groundwater at the Oser Site revealed the presence of all four contaminants, which were also

detected in the groundwater from the Pall site up-gradient of the Oser Site. Concentrations of carbon tetrachloride decreased as groundwater flowed beneath the Oser Site, while concentrations of PCE increased beneath the Oser Site. According to Pease, given the absence of documented PCE use by Anorad, the source of the PCE present on the Oser Site was Vanderbilt's tenant.

Pease then goes on to describe the work of FPM including its Soil Investigation Report, Remedial Investigation Report, proposed Interim Remedial Measures and clean-up cost estimate. Continuing, Pease describes NYSDEC's remedial response actions, including its designation of the Oser Site, the soil and groundwater beneath the Oser Site, and 90 and 110 Oser Avenue as Operable Unit 1 ("OU 1"), and its designation of the off-site contamination, including the plume area as it leaves the Oser Site and down gradient wetlands, a creek and New Mill Pond to the northeast, as Operable Unit 2 ("OU 2").

Based on his analysis of conditions at the Oser Site, Pease concludes that the operations of Vanderbilt's tenant resulted in extensive and significant site contamination including soil, groundwater and vapors and that the Pall plume contributed an estimated 5% to 10% to the PCE contamination of groundwater at the Oser Site.

Pease then turns to the Pall Site, its operations, the discovery of contamination and investigations. Among other things, Pease describes an Initial Soil Sampling Survey Report prepared for Pall in April 1988 investigating a spill of 60% toluene, 35% methacrylic acid, 5% carbon tetrachloride, and trace methylene chloride. He states "[a]pproximately 3,500 gallons of this mixture were discharged between January 28, 1988 and March 11, 1988." According to Pease, concentrations of the four contaminants increased dramatically after the 1988 spill, although prior to the reported spill the concentrations of these constituents had already begun to increase, apparently from other releases. According to Pease, a number of discharges to outfalls and spills of VOCs contaminated the soil and

groundwater at the Pall Site and, given the groundwater flow, the concentration of PCE in groundwater from the Pall Site is between 5% and 10% of the concentrations on the Oser Site while the concentration of the other three contaminants at the Oser Site are entirely attributable to migration from the Pall Site.

*8 Next, Pease turns to the costs incurred and the issue of compliance with NCP requirements. Starting with the work performed by FPM, Pease opines that it conforms to industry standards and was reasonable and necessary. Accordingly, he concludes that the "costs to Chitayat for FPM's services ... meet the conditions of the NCP for cost recovery and should be reimbursed." Pease then goes on to examine the NYSDEC \$8,000,000.00 cost estimates for remediation of OU 1 and OU 2. Finding those estimates too low, Pease estimates remedial costs of \$12,000,000.00. He then concludes that the "response activities of NYSDEC are defined to be compliant with the NCP since they are being performed by a governmental agency."

Pease concludes his report with the opinion that Vanderbilt is 95% responsible for the Site Contaminant and Pall is 5% responsible.

VI. Pall's Contentions

Pall's motion to exclude Pease's testimony is directed to the following three opinions: (1) "that Pall is liable for off-site contamination located downgradient of the Site in an area designated by the DEC as Operable Unit 2 ("OU 2");" (2) "that costs allegedly incurred by Chitayat (and the DEC) are consistent with the National Contingency Plan ("NCP");" and (3) "that Pall discharged at least 3,500 gallons of waste solvents to the environment from an overflow tank in 1988." Pall Corp.'s Mem. in Supp. of Motion in Limine To Preclude Certain Testimony of Thomas E. Pease ("Pall Pease Supp. Mem.") at 1.

With respect to Pease's opinion that Pall is liable

for off-site contamination at OU 2, Pall argues that Pease's testimony that, based on groundwater results, some of the PCE in OU 2 originated from Pall lacks a reliable foundation because the three "signature" contaminants of Pall FN6 are absent from any of the groundwater data for OU 2.

FN6. According to Pease, methylene chloride, toluene, and carbon tetrachloride in the groundwater at the Oser Site are solely attributed to Pall.

Pall argues that Pease's opinion that the costs allegedly incurred by Chitayat and the DEC are consistent with the NCP is not based on sufficient facts or data and is unreliable. Pall points to the fact that Pease only reviewed estimates and projections and did not review any detailed information regarding actual expenditures for specific work performed. Also, Pall points to the fact that Pease's conclusion that Chitayat's costs for certain consultant service ("FPM services") meet NCP requirements for cost recovery and should be reimbursed is without any basis as Chitayat's testimony, as well as document produced by him, demonstrate that the costs for FPM services were paid by Anorad Corporation and not Chitayat.

Pall's third challenge to Pease's testimony is that his opinion that Pall discharged 3,500 gallons of waste solvents is speculative because it is not based on any evidence in this case but from his experience at other spill sites and therefore is nothing more than unbridled speculation.

VII. Application of Relevant Legal Principles to Pease

Pall's objections to Pease's testimony that the costs incurred by Chitayat are consistent with the NCP are well taken. Pease's conclusion that the "costs to Chitayat for FPM's services therefore meet the conditions of NCP for cost recovery and should be reimbursed," [Pease Report at ¶ 144], suffers from a fatal flaw. It is not, as Plaintiff argues, a matter of

whether the record evidence of FPM's investigation of the Site, identification of the contaminant levels, presentation of remedial alternatives and estimates of their costs supports Pease's conclusion. Plaintiff misconstrues Pall's point. It appears uncontroverted that the cost for FPM's services were paid for by Anorad Corporation, not Chitayat, and therefore are not reimbursable to Chitayat. Accordingly, the Court will exclude Pease from testifying that the costs for FPM's services are reimbursable to Chitayat. *See Tyger Constr. Co. v. Pensacola Const. Co.*, 29 F.3d 137, 143 (4th Cir.1994) (holding it was error to admit opinion that was contrary to uncontradicted evidence).

*9 Pease's testimony that the costs for NYSDEC work are NCP compliant will similarly be excluded. There is no evidence that Pease examined anything other than estimates and projections. His failure to review any detailed information regarding actual expenditures for specific work performed renders his opinion as one based solely on speculation and conjecture. Moreover, the Court finds his opinion on NCP compliance is conclusory and excludable on that basis. *See New York v. Solvent Chem. Co.*, 225 F.Supp.2d 270, 285-286 (W.D.N.Y.2002) (citing *Primavera Familienstiftung v. Askin*, 130 F.Supp.2d 450, 529 (S.D.N.Y.2001)). Plaintiff's argument that his conclusion that the investigation and remediation chosen by DEC is not inconsistent with the NCP is justified as a "matter of law" does not save this testimony. Pease is simply not qualified to render such an expert legal opinion. Even if Plaintiff is correct that the NCP consistency requirement is satisfied as a matter of law "where a CERCLA response involves a state environmental agency charged with approving cleanup plans and monitoring the remediation process," [Plaintiff Br. in Opp. to Pall Corp.'s Motion to Preclude at 8-9], FN7 Pease's opinion would be excluded. In that event, Plaintiff could satisfy its burden of establishing that the costs and response actions conform to the NCP by putting forth evidence that the response involved a state environmental agency charged with approving cleanup plans and monitoring the re-

mediation process.

FN7. *But cf. Bedford Affiliates v. Sills*, 156 F.3d 416, 428 (2d Cir.1998) (stating that significant state involvement may satisfy the public notice/comment provision of NCP).

Pall's challenge to Pease's opinion that Pall discharged 3,500 gallons of waste solvents as speculative presents a close question. It is certainly permissible for experts to draw on their experience to extrapolate from the facts and come to an opinion. *See Zerega Ave. Realty Corp. v. Hanover Ins. Co.*, 2006 U.S. Dist. Lexis 30034 (S.D.N.Y. May 17, 2006) ("Drawing upon one's educational background and practical experience is a reliable methodology through which to develop opinions and reach conclusions about a scientific, technical or other area of specialized knowledge."). It is undisputed that there was a spill. While Pall maintains that only 750 gallons were released to the environment, as Pease noted in his deposition testimony, the records could support an inference that there was some degree of spillage before Pall suddenly began taking "stick" measurements. That, together with Pease's experience that ninety percent of the time the actual amount of the material spilled is more than what can accurately be accounted for immediately after the spill occurs, provides support for Pease's opinion as to the amount of the spill. His opinion is not devoid of factual reference or reasoning and therefore this portion of the motion in limine will be denied. Ultimately, the trier of fact will have to decide whether or not to accept his opinion.

The Court now turns to Pall's argument that Pease's testimony regarding the PCE in OU 2 lacks a reliable foundation. Pall's argument is premised on the absence of the three "signature" contaminants of Pall FN8 from any of the groundwater data for OU2. While providing a fertile basis for cross-examination, the absence of the signature contaminants does not warrant exclusion of Pease's opinion. As Pease explained during his deposition, PCE

propagates and impacts the groundwater to a greater extent than at least toluene. Pease Dep. II at 60. Additionally, different bacteria breakdown different contaminants. *Id.* Each of the contaminants at issue has its own propensity for absorption on soils and degradation. *Id.* at 69. These factors could explain the absence of the three signature contaminants from any of the groundwater data for OU 2. Accordingly, it cannot be said Pease's opinion regarding OU 2 lacks any reliable foundation. The motion in limine regarding OU 2 is denied.

FN8. As noted earlier, Pease opines that methylene chloride, toluene and carbon tetrachloride in the groundwater at the Oser Site are solely attributed to Pall.

Conclusion

*10 The motion to preclude the testimony of Dan Buzea is granted as to his cost allocation opinion based on the Gore factors but is otherwise denied. The motion to preclude the testimony of Dr. Pease is granted as to his opinions that the costs for FPM's services are reimbursable to Chitayat and that the costs for NYSDEC work are NCP compliant, but is otherwise denied. As discussed herein, some of the issues raised in these motions present close questions. Also, the Court has greater flexibility in its gatekeeping function in this case given its role as the trier of fact. Accordingly, the Court shall consider requests to renew these motions during the course of the trial.

SO ORDERED.

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EXHIBIT P

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Tobias v. Pennsylvania Bd. of Probation and Parole
 E.D.Pa.,2005.

Only the Westlaw citation is currently available.

United States District Court,E.D. Pennsylvania.

Rosalind Russ TOBIAS

v.

PENNSYLVANIA BOARD OF PROBATION
 AND PAROLE, Edward Jones, Frank Margerum,
 and Michael Moyer.

Civil Action No. 04-0270.

April 26, 2005.

Named Expert: Andrew Verzilli

Robert J. Sugarman, Philadelphia, PA, for Plaintiff.
 Claudia M. Tesoro, Office of Attorney General,
 Philadelphia, PA, Susan Shinkman, Office of General Counsel, Harrisburg, PA, for Defendants.

ORDER

THOMAS N. O'NEILL, JR., District Judge.

*1 Defendants have filed a motion in limine to preclude testimony or other evidence from Andrew Verzilli or any other expert witness arguing that plaintiff should be precluded from offering such expert testimony because she failed to identify any proposed experts prior to her pretrial memorandum. Plaintiff argues that she should not be so precluded because: (1) her failure to identify any experts was the result of failures by this Court and defendants; and (2) defendants are not prejudiced by such a late submission of expert testimony.

Pursuant to Judge Dalzell's February 10, 2004 order, discovery was scheduled to conclude June 10, 2004 and, as a result of Judge Dalzell's July 23, 2004 order, ultimately was concluded on August 21, 2004. During this period of discovery, plaintiff never identified any expert or provided any accompanying report of the expert's testimony. On March 12, 2004, defendants submitted interrogatories specifically requesting plaintiff to response to the fol-

lowing: "Identify each and every witness (if any) whose opinion(s) plaintiff intends to rely upon in support of her position in this litigation and, for each, provide all the factual information which is required to be disclosed pursuant to Fed.R.Civ.P. 26(a)(2)." On April 20, 2004, plaintiff responded by objecting on grounds of "work product" doctrine and stated: "In the alternative, plaintiff has not yet determined which expert witnesses, if any, will be called at the trial of this matter. Plaintiff will disclose the identities of such witnesses and provide requested data in accordance with the Federal Rules of Civil Procedure and Case Management Order." Plaintiff never supplemented this interrogatory answer. On November 23, 2004, plaintiff sent a letter to defendants which stated, "For purposes of settlement discussions and possible use at trial, this will supplement our specification of damages," but further stated that "we have not yet settled on an expert." Plaintiff finally disclosed in her March 25, 2005 pretrial memorandum that she would be introducing expert testimony from Dr. Verzilli. Plaintiff did not submit the accompanying expert report until her April 25, 2005 response to defendants' motion to preclude Dr. Verzilli's expert testimony. At no point during this action did this Court list any special requirements or deadlines with respect to experts.

Federal Rule of Civil Procedure 26(a)(2)(A) requires a party to disclose to other parties the identity of any expert witness that may be used at trial. Rule 26(a)(2)(B) requires the disclosing party to provide "a written report prepared and signed by the witness" that contains "[1] a complete statement of all opinions to be expressed and the basis and reasons therefor; [2] the data or other information considered by the witness in forming the opinions; [3] any exhibits to be used as a summary of or support for the opinions; [4] the qualifications of the witness, including a list of all publications authored by the witness within the preceding ten years; [5] the compensation to be paid for the study and testi-

mony; and [6] a listing of any other cases in which the witness has testified as an expert at trial or by deposition within the preceding four years." Rule 26(b)(4)(A) further provides that a party may not depose any person who has been identified as an expert and who requires an accompanying report until after the report is provided.

*2 Federal Rule of Civil Procedure 37(c)(1) authorizes me to impose sanctions, including precluding evidence, on a party who fails to disclose information required by Rule 26(a), including expert evidence, unless such nondisclosure is harmless or the nondisclosing party asserts a substantial justification for its nondisclosure. Rule 37(c)"is designed to provide a strong inducement for disclosure of Rule 26(a) material."*Newman v. GHS Osteopathic, Inc.*, 60 F.3d 153, 156 (3d Cir.1995). It is within my discretion to determine if a party has provided a substantial justification for their delay or if that delay is harmless. *Id.* It is also within my discretion to determine whether to impose sanctions and which sanctions are appropriate under the circumstances. *Id.*

Plaintiff asserts that her failure to identify her proposed expert prior to her pretrial memorandum or to submit the expert report was justified because: (a) this Court failed to enter a scheduling order setting forth dates by which expert reports needed to be supplied; (b) defendants' failed to ask for a report from Dr. Verzilli, to file an interrogatory requesting identification of or reports from any experts, seek depositions of experts, or to file a motion for sanctions due to any failure to respond to any interrogatories prior to the parties' pretrial memoranda when defendants were aware that she would call an expert witness; and (c) the expert report was delayed as a result of plaintiff's recent change in employment, for which Dr. Verzilli needed additional time to finalize his report. Plaintiff's explanations are not sufficient to constitute substantial justifications under Rule 37(c).

Rule 26(a) (2)(C) provides that "[i]n the absence of other directions from the court or stipulation by the

parties, the disclosures shall be made at least 90 days before the trial date or the date the case is to be ready for trial." Because no order was issued by this Court, plaintiff had an affirmative obligation to identify her proposed expert and submit the expert report ninety days in advance of the trial date regardless of defendants' failure to inform plaintiff of her need to comply with Rule 26(a)(2) and irrespective of plaintiff's changing employment status. It is not the duty of this Court or of defendants to shepherd plaintiff through the Federal Rules of Civil Procedure to ensure that she preserves her claims against defendants.

Moreover, the ninety day period was extended numerous times as a result of my continuance of this trial. Pursuant to my January 6, 2005 order, scheduling the trial for March 8, 2005, plaintiff would have been required to have identified her experts and submit the expert reports by December 9, 2004. However, as an indirect result of my February 18, 2005 order, continuing the trial until April 26, 2005, plaintiff was given until January 9, 2005-an additional thirty one days-to do so. I further continued the trial until May 3, 2005, moving plaintiff's prior deadline to January 16, 2005-an additional seven days. Therefore, plaintiff was required to identify her experts and submit expert reports by January 16, 2005 at the latest. Yet, plaintiff did not identify her expert until March 25, 2005-thirty nine days before trial-and did not submit the expert report until April 25, 2005-a mere eight days before trial. The sole cause of plaintiff's failure to identify her proposed expert under Rule 26(a)(2) is plaintiff's lack of diligence in pursuing her claim. Lack of diligence is not a substantial justification.

*3 "The exclusion of critical evidence is an extreme sanction, not normally to be imposed absent a showing of willful deception or 'flagrant disregard' of a court order by the proponent of the evidence."*Quinn v. Consol. Freightways Corp. of Del.*, 283 F.3d 572, 576 (3d Cir.2002)citing *Meyers v. Pennypack Woods Home Ownership Ass'n*, 559

F.2d 894, 905 (3d Cir.1977). In determining whether to exclude plaintiff's expert testimony, I must consider the four factors established by the Court of Appeals in *Meyers*: "(1) the prejudice or surprise in fact of the party against whom the excluded witnesses would have testified; (2) the ability of that party to cure the prejudice; (3) the extent to which waiver of the rule against calling unlisted witnesses would disrupt the orderly and efficient trial of the case or other cases in the court; and (4) bad faith or willfulness in failing to comply with the district court's order." *Quinn*, 283 F.3d at 576 citing *Meyers*, 559 F.2d at 905.

Plaintiff argues that defendants will not be prejudiced by her failure to comply with Rule 26(a)(2) because: (a) defendants have known for months that plaintiff was making a loss of earnings and loss of earning capacity claim and intended to call an expert witness; (b) plaintiff had disclosed her intention to obtain an expert report and defendants took no action to request a deposition, a report, or even disclosure; and (c) no evidence has been lost and no witness' memory has faded.

I disagree. Defendants are prejudiced by having only eight days in which: (i) to depose Dr. Verzilli, (ii) to challenge Dr. Verzilli's methodology in a *Daubert* hearing, (iii) to prepare their rebuttal to Dr. Verzilli's testimony and report, (iv) to retain their own expert (if one could be retained with such late notice), (v) to have their own expert prepare his or her testimony and report, and (vi) to respond to any motions in limine seeking to preclude the expert's testimony and report. Eight days is not enough time in which to cure this prejudice. It is possible that if defendants had received Dr. Verzilli's report on March 25, 2005 with plaintiff's pre-trial memorandum that they would have had enough time with which to prepare a rebuttal and retain their own expert. However, eight days before trial is simply too late to surprise defendants with plaintiff's newly introduced expert and report. Allowing this evidence at this late stage would disrupt the orderly flow of trial because defendants would

be forced to prepare their opposition to Dr. Verzilli's testimony and report and retain and prepare its own expert and report rather than focusing on the factual issues at trial.

Plaintiff argues that her failure to identify Dr. Verzilli and submit his report was not in bad faith because: (a) defendants have been aware of the nature of plaintiff's claim and the fact that an expert would be called; (b) plaintiff specifically advised defendants in writing that an expert report was being sent; (c) Dr. Verzilli's testimony is crucial because no other expert is available; (d) the reassignment of case to me made it difficult to know which dates and which scheduling orders were the appropriate ones. Plaintiff's failure to identify her expert and submit the expert report appears to be the result of a lack of diligence rather than bad faith. Although I am concerned by the importance of the expert testimony and report on the issue of economic damages, plaintiff's lack of diligence should not be rewarded by prejudicing defendants at trial.

*4 Plaintiff will be precluded from offering expert evidence, including the testimony and report of Dr. Verzilli.

AND NOW, this 26th day of April 2005, upon consideration of defendants' motion in limine to preclude testimony or other evidence from Andrew Verzilli or any other expert witness and plaintiff's response thereto, and for the reasons set forth above, it is ORDERED that defendants' motion is GRANTED.

E.D.Pa.,2005.

Tobias v. Pennsylvania Bd. of Probation and Parole
Slip Copy, 2005 WL 6042718 (E.D.Pa.)

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